Amendments to the Claims

Listing of Claims:

1. (Currently amended) A distributed network comprising: ~~having~~

a plurality of processors~~, the network hardware and software comprising:~~

a local counter associated with each of the processors in the distributed network;

an event register associated with each of the local counters; and

an event logger for receiving a counter value from the local counter in response to an event being registered in the event register.

2. (Original) The distributed network of claim 1 comprising a global clock wherein a time stamp is calculated based on the counter value received from a counter associated with a processor in the distributed network.

3. (Original) The distributed network of claim 1 wherein the event logger records data concerning a type of event registered by the event register and a time an event occurred.

4. (Original) The distributed network of claim 1 wherein the event register remains frozen until the event register is read by the system monitor.

5. (Original) The distributed network of claim 1 comprising dynamic masking mechanisms for filtering the event register outputs to differentiate between critical and non-critical events.

6. (Original) The network of claim 5 wherein the masking is dynamically updated during online processing.

7. (Original) The network of claim 1 comprising software for performing conditional probability

calculations based on event information stored in a history table wherein the calculations are performed to determine if a probability of an event occurring has exceeded a minimum threshold level and, if the threshold is exceeded, to migrate a process or schedule maintenance to avoid consequences of the predicted event.

8. (Original) The network of claim 7 wherein the conditional probability calculations are based upon events occurring within a selected time window.

9. (Original) The network of claim 1 wherein the event register comprises an error time stamp register that receives a value from the local counter when an event occurs.

10. (Original) The network of claim 1 wherein the event register stores an error occurred value that indicates to the network monitor that a critical event has occurred.

11. (Currently amended) A method of producing a time stamp for an event occurring on a distributed network, the method ~~including a plurality of processors~~ comprising:

producing a local counter value for each of a plurality of processors in the distributed network with an associated counter;

synchronizing the local counter at each of the processors with a global clock; and

freezing the local counter for a processor when a critical event associated with the processor occurs.

12. (Original) The method of claim 11 comprising establishing a history table containing information concerning events associated with the critical event and the conditional probabilities of the associated events during offline processing.

13. (Original) The method of claim 12 comprising determining during an offline phase if an event is critical and whether or not online processing is possible.

14. (Original) The method of claim 12 comprising dynamically filtering the events based on a recorded history of information associated with the occurrence of events such that only certain critical events produce global interrupts.

15. (Original) The method of claim 12 comprising updating the conditional probability information and history table during offline processing.

16. (Original) The method of claim 11 comprising determining during online processing a type of event that occurred and determining whether to produce a global alert, synch stop or machine check alert signal based upon the type of event that occurred.

17. (Original) The method of claim 11 comprising dynamically masking events that occur based on conditional probabilistic calculations using machine learning algorithms to predict an occurrence of a critical event during a specified time period.

18. (Currently amended) A distributed computer system ~~having hardware and software~~ for implementing a time stamping process for producing a time stamp associated with an occurrence of an error event, the computer system comprising:

a plurality of processors;

a plurality of local counters wherein each counter is associated with one of the plurality of processors ~~a particular processor or system~~ in the distributed computer system;

an event register for recording event information concerning an occurrence of an event associated with the processor and event register; and

an event logger for receiving and logging information concerning the occurrence of the events.

19. (Original) The distributed computer system of claim 18 comprising a global clock for synchronizing the local counters.

20. (Original) The distributed computer system of claim 19 wherein the event logger records a time stamp based upon the global clock and a local counter value received from a local counter.

21. (Original) The distributed computer system of claim 18 comprising dynamic masks created based upon historical event information for filtering events such that only information concerning critical events result is stored.

22. (Original) The distributed computer system of claim 21 comprising software for evaluating events based on conditional probabilistic calculations and scheduling remedial or preventative action during online processing.

23. (Original) A computer-executable medium comprising instructions for producing a time stamp for an event occurring on a distributed network including a plurality of processors, the medium comprising instructions for:

producing a local counter value for each of a plurality of processors in the distributed network with an associated counter;

synchronizing the local counter at each of the processors with a global clock; and

freezing the local counter for a processor when an event associated with the processor occurs.

24. (Original) The medium of claim 23 comprising an instruction for monitoring the local counter with a system monitor through the use of online and offline processing.

25. (Original) The medium of claim 23 comprising an instruction for periodically polling the local counters and storing information received in a history table.

26. (Original) The medium of claim 23 comprising an instruction for dynamically filtering the events based on a recorded history of information associated with the occurrence of events such that only critical events are reported to a system monitor.

27. (Original) The medium of claim 23 comprising an instruction for performing conditional probability calculations to determine if a probability that a critical event will occur exceeds a threshold level and performing or scheduling preventative action if such threshold is exceeded.

28. (Currently amended) The medium of claim [[11]] 23 comprising an instruction for determining a type of event that occurred and determining whether to produce a global alert, synch stop or machine check alert signal based upon the type of event that occurred.

29. (Currently amended) The medium of claim [[11]] 23 comprising an instruction for dynamically masking events that occur based on conditional probabilistic calculations using machine learning algorithms.